

KUTMAN, B.L., inzh.

Improvement of the aerodynamics of the drum of a ball mill.
Teploenergetika 10 no.11:12-22 N '63. (MIRA 17:1)

1. Upravleniye energeticheskoy promyshlennosti Soveta narod-
nogo khozyaystva Permskogo ekonomicheskogo administrativnogo
rayona.

KUTMAN, B.L., inzh.

Selection of optimum angular velocity and arbor diameter
for a ball mill. Elek. stat. 37 no. 1 1960 pp. 104-106.

Moscow, U.S.S.R.

CZECHOSLOVAKIA/Electricity - General Problems.

G

Abs Jour : Ref Zhur Fizika, No 11, 1959, 25173

Author : Kutman, D., Kaspar, J.

Inst :

Title : Measurement of Electric Field

Orig Pub : Slaboproudy obzor, 1959, 20, N. 2, 117-118

Abstract : Survey of methods used to measure electric field.

Card 1/1

KUTMAN, O.; KASPAR, I.

"Electronic microcoulombmeter." P. 369.

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV). Praha, Czechoslovakia, Vol. 20, No. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

Comparative studies on the stability of conditioned electro-cutaneous reflexes induced by means of a conditioned and a standard technics. *Cesk. fysiol* 8 no.2:123; passim.

1. Laborator grafickych vysetrovacich metod CSAV a Laborator fyziologie a patofyziologie zrakového analyzátoru CSAV, Praha. Předneseno na seminari Laboratore grafickych vysetrovacich metod CSAV 22. 9. 1958.

(REFLEX, CONDITIONED,

stability of conditioned electro-cutaneous reflexes induced by means of conditioned & unconditioned methods (Cz))

KUTNAR, F.

"The local annualist and designer, Frantisek Safranek."

p. 115. (Cesky Lid., Vol 43, No. 3, 1956, Prague, Czechoslovakia)

GEOGRAPHY & GEOLOGY

Monthly Index of East European Accessions (EEAI) LC, Vol 7, No. 12, Dec 58

CZECHOSLOVAKIA/Farm Animals. Domestic Fowls.

Q

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16860.

Author : Kutnar J.

Inst :

Title : Fattening of Cockerels for Meat
(Otkorm molodykh petushkov na myaso)

Orig Pub: Zeměd. pokrok, 1957, 4, No 9, 138-139.

Abstract: The author enumerates the following factors which in his opinion condition the profitableness of fattening: feeding on a thick bedding; age of cockerels at the time of their selection for fattening must be 6-8 weeks for light breeds and 100 weeks for meat-type breeds; complete rations guaranteeing maximum daily increase in weight;

Card : 1/2

CZECHOSLOVAKIA/Farm Animals. Domestic Fowls.

Q

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16860.

reduction of the duration of fattening and
hormonal caponizing.

Card : 2/2

40

CZECHOSLOVAKIA/Farm Animals. Cattle.

Q

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16763.

Author : Kutnar J.

Inst :

Title : Is it Possible to Increase Productiveness of Our
Cattle by Means of Crossbreeding? (mozno li povysit'
produktivnost' mashego skota putem skreshchivaniya?)

Orig Pub: Nás chov, 1957, No 7, 192-194.

Abstract: The crossing of the Red-spotted Czech cows with
Ayrshire bulls produced the following results:
the live weight of the crossbred cows of the
first generation, about 500 kg; the average milk
yield during first lactation - 3000 - 3500 kg with
3.8 - 4.1% butterfat, the highest milk yield -
4400 kg with 4.1% butterfat; the exterior - closer

Card : 1/2

16

CZECHOSLOVAKIA/Farm Animals. Cattle.

Q

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16763.

to the Ayrshires. The importance of the improvement of the conditions of maintenance and feeding of animals is emphasized.

Card : 2/2

CZECHOSLOVAKIA / Farm Animals. Cattle.

Q

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 21245

Author : Kutnar, J.

Inst : Not given

Title : Testing the Hereditability of the Bull's Useful
Properties on the Qualities of His Progeny

Orig Pub : Nas chov, 1958, No 6, 157-158

Abstract : Two purebred bulls were compared in terms of average
evaluation of their progeny. The progeny of each
bull was divided into classes according to appearance,
the number of heads contained in each of the classes
was multiplied by a specific coefficient, the obtained
results were added and the total was divided by the
number of heads serving as controls. A coefficient
of 4.5 was established for the highest class, of 4 for

Card 1/2

CZECHOSLOVAKIA / Farm Animals. Cattle.

Q

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 21245

a high class, of 3.5 for first class and of 3 for
second class.

Card 2/2

KUTNAYA, G.V., instruktor; PAVLOVA, V.A., instruktor.

Importance of exercise therapy for children with rheumatic fever.
Med. sestra 19 no. 10:35-37 0 '60. (MIRA 13:10)

1. Kabinet lechebnoy fizkul'tury Instituta pediatrii AMN SSSR.
(EXERCISE THERAPY) (RHEUMATIC FEVER)

Kutnaye, K. A.

GONZA, M.S.; GENZER, M.S.; DYMOVA, V.N.; SIDOROV, V.F.; PADEYEV, V.M.
SKOMOROKHOV, V.N.; KUTNAYEV, K.A.; KIRYUSHICHEV, I.K.

Remedying defects at points of decrease in flat-knit
stockings. Leg.prom. 17 no.8:40-42 Ag '57.
(Hosiery)

(MIRA 10:10)

SHCHIRENKO, H.S., doktor tekhn.nauk, prof.; DOBROV, V.P., kand.tekhn.
nauk; KUTNER, M.B., inzh.; PEVTSOV, V.P., inzh.

New intermediate rapidly rotating hopper for the distribution
of blast furnace burden. Izv. vya. ucheb. zav.; chern. met.
no.7:177-183 J1 '58. (MIRA 11:10)

1. Dnepropetrovskiy metallurgicheskii institut i Dnepropetrovskiy
Gipromet.
(Blast furnaces)

SOV/133-59-1-2/23

AUTHORS: Kutner, M.B. and Pruzhanskiy, D.I., Engineers

TITLE: An Analysis of Systems of Automation of Scale Cars
(Analiz sistem avtomatizatsii vagon-vesov)

PERIODICAL: Stal', 1959, Nr 1, pp 5 - 9 (USSR)

ABSTRACT: In the Krivorozhskiy zavod (Krivoy Rog Works) efforts for the purpose of automating scale cars were in progress even before the war. In the NTMK (Nizhniy Tagil Met.Combine) such efforts have been in progress jointly with the UPI (Urals Polytechnical Institute) from 1948 onwards, in the Dnepropetrovsk Gipromez jointly with the imeni Dzerzhinskogo Works from 1949 onwards, in the Kuznetskiy metallurgicheskiy kombinat (Kuznetsk Metallurgical Combine) (KMK) from 1950 onwards. "Elektroprivod" jointly with "Azovstal'", the DO TPEP (Dnepropetrovsk Division of Tyazhpromelektroproyekt), the OF SKBIM (Odessa Branch of the Special Design Office for Experimental Machinery) jointly with the zavod im. Starostina (imeni Starostin Works) have worked on this problem since 1954-1955. The automation systems of KMK and UPI-NTMK have been in operation for some time. The authors deal with the subject matter under the following chapter headings: the programme of loading the charge materials; features of loading charge materials;

Card1/2

SOV/133-59-1-2/23

An Analysis of Systems of Automation of Scale Cars

arrangement of the programming apparatus; command equipment and equipment for fixing the weight of the materials; automation of the transportation; comparative analysis of 5 automation systems, one of which is available in 2 variants (table, p 7). The TsKB "Elektroprivod" system is considered to be the most complicated in respect of the quantity of equipment required but best as regards its technological potentialities. The most simple system in respect of equipment is the KMK system; the technological potentialities of this system are somewhat lower than those mentioned above. The most serious disadvantage of this system is the low accuracy of weighing and a complicated programming of collecting the burden. The other systems discussed are considered to be inferior. There is 1 table. P.D. Pesin, N.H. Podkanter and N.S. Fil' also participated in the work.

ASSOCIATION: Dnepropetrovskiy Gipromez (Dnepropetrovsk Gipromez)

Card 2/2

ROZENSHTRAKH, M.B., inzh.; KUTNER, M.B., inzh.

Largest blast furnace in the world. Met.1 gornorud.prom. no.5;
3-7 S-0 '62. (MIRA 16:1)

1. Ukrainskiy institut po proyektirovaniyu metallurgicheskikh
zavodov.

(Blast furnaces)

BRITVIN, I. A., inzh.; KUTNER, M. B., inzh.; PODKANTOR, M. M., inzh.;
FIL', M. S., inzh.

Increasing the blast temperature of blast furnaces in plants
of the Dnieper Economic Region. Met. i gornorud. prom. no.1:
11-12 Ja-F '63. (MIRA 16:4)

1. Ukgipromez.

(Dnieper Economic Region—Blast furnaces)

KUTNER, M.B.; PODKANTOR, N.N.; GORODETSKIY, A.N.; ROBUSTOV, A.M.,
ARIST, L.M.

Mechanization of auxiliary sections in blast furnace practice.
Met. i gornorud. prom. no. 2:18-19 Mr-Apr '64. (MIRA 17:9)

KUTNER, M.B.; PODKANTOR, N.N.

Mastering the capacity of blast furnaces with 2,000 M³ volume
in southern plants of the U.S.S.R. Met i gornorud. prom.
no.3:1-6 My-Je '64. (MIRA 17:10)

LIVININZO, V.I.; KUTUB, M.B.; IOLKANTON, N.N.; FOMIN, A.P.; ... L.P.

Single lip pouring of pig iron and slag at blast furnaces.

Met. 1 gornerud. prom. no.1:58-59 Ja-F '65.

(MIFA 18:3)

KUTNER, M.B.; POLKANTOR, H.N.

Design of coolers and resistance of the shaft brickwork in
modern blast furnaces. Met. 1 gornorud. prom. no.2:14-16
Mr-Ap '65. (MIRA 18:5)

1. The first part of the report is devoted to the study of the

Mechanism of the propagation of the flame in the case of
explosive blast furnaces. Part I, Chapter I, 1971. N. 1-12.
1971. 124. (111) 1971

KUTMER, M.B.; PODKANTOR, N.N.; TKACHENKO, A.D.

Durability of the carbon hearth lining of large blast furnaces.
Met. 1 gornarud. prom. no.3:7-10 My-Je '65. (MIRA 18:11)

TONKONOV, G.V.; BRIL, L.M.; ZOR, A.M.; PAVLOV, M.I.; LITVINOV, N.D.;
LIVITSKIY, V.I.; GORODNIKOV, A.N.; PAVLOV, A.I.; KAMENKO, V.G.

Reorganization operations in the field of the hearth
of large-capacity blast furnaces. (Sov. Engng. 1965-10) p. 165.
(MIR 1965)

KUTNEVICH, B.S.

Experimental artorial ischemia of the live. Eksp. khir. 1
anest. 6 no. 4:58-59 '61. (MIRA 14:10)
(HEPATIC ARTERY—DISEASES)

KUTNEVICH, B.S. (L'vov, ul. Lenina, 43, kv.2)

Arterial structure of a rabbit's liver following ligation of the
hepatic artery under various conditions. Arkh. anat. gist. 1
embr. 40 no.3:47-53 Mr '61. (MIRA 14:5)

1. Kafedra normal'noy anatomii (zav. - prof. A.P.Lyubomudrov)
L'vovskogo meditsinskogo instituta.

(HEPATIC ARTERY—SURGERY)
(LIVER—BLOOD SUPPLY)

SEVER'YANOV, Nikolay Nikolayevich, kand.tekhn.nauk. Prinsipali uchastiye:
KUTHEVICH, M.A., inzh.; MOCHALOVSKIY, N.G., inzh.. POLYAKOV,
N.K., nauchnyy red.; DOLMATOV, P.S., vedushchiy red.; YASHCHUR-
ZHINSKAYA, A.B., tekhn.red.

[Transportation in the fuel industry] Transport toplivnykh
predpriatii. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i
gorno-toplivnoi lit-ry, Leningr.otd-nis, 1959. 623 p.

(MIRA 13:2)

(Railroads, Industrial) (Transportation, Automotive)
(Fuel--Transportation)

Thermal emission of positive ions from alkali metal compounds. Tomasz Goworek and Jan Kutnik (Univ. Lublin, Poland). *Ann. Univ. Mariae Curie-Skłodowska, Lublin, Polonia, Sect. AA 12*, 41-7 (1960) (English and Russian summaries).—Emission current, i , for halides of Li, Na, K, and Rb was measured at 10^{-6} mm. Hg and at 1100-500°K.; the activation energy, E , from $i = AT^2 \exp(-E/kT)$ was estd. at 1.03, 1.29, 0.99, 1.03, and 2.13 e.v., for LiCl, KCl, RbCl, KI, and NaBr, resp. A circuit stabilizing the ion current is described. I. Stekl

KUTNIK, S.Ye.; SOSNIN, Yu.P.; TIKHONOV, B.S.

Improved electromagnetic valve. Gaz.prom. 6 no.7:16-17 '61.
(MIRA 17:2)

KUTNIKOVA, V.P. (Moskva); SAMAROV, I. Ye. (Moskva)

Frequencies of natural vibration of the basic types of orthotropic
shallow conic shells. Izv. AN SSSR. Otd.tekh.nauk.Mekh. 1
Mashinost. no.4:183-186 J1-Ag '61. (MIRA 14:8)
(Elastic plates and shells--Vibration)

AUTHOR:

Kutniy, Y. D.

TITLE:

Selecting the Voltage and Power Supply System for the Lighting of Drilling Installations (Vybór napryazheniya i skhem pitaniya osveshcheriya burovoy ustanovki)

PERIODICAL:

Energeticheskiy byulleten', 1959, Nr 8, 11-12, 10 (USSR).

ABSTRACT:

The various voltages and power systems possible are discussed. The proposed system uses a voltage of 120 v from a 6/0.23 kv transformer with its secondary winding delta-connected. This makes it possible to supply the power and lighting loads from a common transformer, to have an isolated neutral line (to guard against electric shocks) and to use ordinary commercial lights and lamps up to 300 w. A device is fitted for checking any drop in the insulation resistance and can be set to operate warning lamps. One

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007-90-58 8 3/9
Selecting the Voltage and Power Supply System for the Lighting of Drilling Installations

lighting load is fed in three separate groups instead of all in one, as at present. Thus, if one group circuit fails, there will still be light in the other two. There is a wiring diagram and 1 Soviet reference.

1. Power supplies 2. Lighting system. Power supply

Card 2/2

KUTNIY, Ye. D.

AUTHOR: Movsesov, N.S.

7-96-53 8-4/9

TITLE: On E.D. Kutniy's Article "Selecting the Voltage and Power Supply System for the Lighting of Drilling Installations (Po povodu stat'yi E.D. Kutnogo "Vybor naprvazheniya i osveshcheniya burovykh ustanovki")

PERIODICAL: Energeticheskii byulleten', 1958, Nr 8, pp 10 - 11 (USSR)

ABSTRACT: The author agrees with Kutniy on many points and particularly on the economic and technical waste involved in a conversion to a 36 v system. He disagrees, however, with Kutniy's proposal to use 220 v for both lighting and power needs instead of the 380 v power supply currently adopted. Comparing the number of electric motors operating off 220 v and 380 v in the average drilling installation, he shows that the adoption of 220 v would necessitate a cable with cross-section 10-16 mm², whereas with the 380 v system the cross-section is only 4-6 mm². The majority of drilling sites already divide their lighting load into 3 or more circuits for the purpose of power supply. The author supports the pre-

Card 1/2

On E.D. Kutniy's Article "Selecting the Voltage and Power Supply System
for the Lighting of Drilling Installations" SSR-89-86-8-4/9

sent system of 220 v for lighting and 380 v for power needs
supplied from a common transformer yielding 380/220 v at
the low-voltage side. There is 1 table

1. Power supplies 2. Lighting system Power applied

Card 2/2

KUTNOHOLSKY, A.

Czechoslovak standard 73 (101 and the transition curve to circular arc. p.12.
(Silnice, Vol. 6, No. 2, Feb. 1957, Praha, Czechoslovakia)

SC: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

KUTNOHORSKY, ALEXANDR.

TECHNOLOGY

KUTNOHORSKY, ALEXANDR * Vytýcovací tabulky pro klotoidické prechodnicové
oblouky Praha, Státní nakl. technické literatury, 1958 163 p.

Monthly List of East European Accessions (EEAI) LC VOL. 8, No. 2

May 1959, Unclass

AKHRIYANOVA, A.; GUSEVA, V.; KUTNOVA, R.

Factory conference for the survey of articles of the
"Khimicheskio volokna." Khim.volok. no.5:79 '61. (MIRA 14:10)
(Textile fibers, Synthetic—Periodicals)

KUTNOVSKIY, S.I., dotsent

Formation of a leg stump from a free bone transplant with the
spongiosa. Ortop. travm. i protez, 21 no. 9:24-26 S '60.
(MIRA 13:12)

1. Iz Novosibirskogo instituta travmatologii i ortopedii (dir. -
D.P. Metelkin).
(AMPUTATION STUMPS) (BONE GRAFTING)

S/137/62/000/001/068/237
A060/A101

AUTHORS: Radomysel'skiy, I. D., Kutnyak, V. A., Andreyeva, N. V.

TITLE: Automatic gas combination furnace for sintering of metallo-ceramic articles and conversion of natural gas

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 42, abstract 1G324 ("Poroshk. metallurgiya", 1961, no. 3, 91-99, English summary)

TEXT: The authors describe the design of a furnace for sintering of metallo-ceramic articles in an environment of gas under conversion. The furnace is heated by natural gas, burned in flameless burners, and is designed for the use of carbofraxine muffles. The furnace is equipped with a device for obtaining converted natural gas from a steam-gas mixture $\text{CH}_4 - \text{H}_2\text{O}$ (1:1). The furnace productivity is up to 15 kg/h, working temperature - up to 1,200°C. The furnace operation is automated, the trays with the parts are fed into the furnace by means of hydraulic pushers. The blowing through of the loading and the unloading chambers by neutral gases is provided for. The sintering furnace has two zones of temperature regulation.

R. Andriyevskiy

[Abstracter's note: Complete translation]
Card 1/1

BERDICHAYSKAYA, I.I.; KAMENICHENY, I.S.; EDINIK, V.A.; SALAVYUKHIN, A.N.

Introducing induction hardening of small-diameter holes by means
of "oxiferrites." Prikl.tekh.-ekon.inform.Gos.nauch.-issl.inst.
nauch.i tekhn.inform. 18 no.4:25-26 Ap '65.

(MIRA 18:6)

ADAM, Milan; MALECEK, Jiri; KUTOCA, Marta; PAVELKA, Karel

Glycoproteins in chronic evolutive polyarthritis. Cas. lek. cesk.
97 no.15-16:467-470 18 Apr 58.

1. Vyzkumny ustav chorob revmatickych v Praze, reditel: prof. Frant.
Lenoch Ustav organisace zdravotnictvi fakulty vseobecneho lekarstvi
Karlovy university v Praze, prednosta prof. Vaclav Prosek.
(ARTHRITIS, RHEUMATOID, blood in
glycoproteins (Cz))
(BLOOD PROTEINS, in various dis.
glycoproteins in rheum. arthritis (Cz))

KUTOLIN, S.A.

Certain property of the linear transformation used for
calculating isobaric potentials and heats of formation
of various alkali metal compounds. Zhur. fiz. Khim. 38
no.5:1269-1271 My '64. (MIRA 18:12)

1. Submitted Nov. 22, 1962.

ACCESSION NR: AP4046449

S/0076/64/009/010/2359/2361

AUTHOR: Kutolin, S. A.; Druz', N. A.; Vulikh, A. I.

B

TITLE: Second stable modification of lithium metazirconate

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 10, 1964, 2359-2361

TOPIC TAGS: lithium metazirconate, stable modification, x ray analysis

ABSTRACT: The existence of a second stable modification of lithium metazirconate in the $\text{Li}_2\text{O}-\text{ZrO}_2$ system was established. Heating of $2\text{LiOH} + \text{ZrO}_2$ in a muffle furnace for 4 hours at 950°C gave a product Li_2ZrO_3 (II) which differed from that Li_2ZrO_3 (I) synthesized by A. A. Grizik and V. Ye. Plyushchev (Zh. neorg. khimii, 6, 2249 (1961)) from $\text{Li}_2\text{CO}_3 + \text{ZrO}_2$ by heating at 1100°C for 1-2 hours. Differences in the two modifications were established from x-ray data. No mutual transitions of the two modifications were noted. Differences in their physical properties were established; fusion temperatures-- Li_2ZrO_3 I, $1600 \pm 50^\circ\text{C}$ and Li_2ZrO_3 II, $1530 \pm 50^\circ\text{C}$; densities--4.125 and 3.508, respectively. The

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ACCESSION NR: AP4046440

refractive index of both materials was above 1.76. An examination of the hydrolysis kinetics showed $\text{Li}_2\text{ZrO}_3\text{II}$ hydrolyzed much more readily than $\text{Li}_2\text{ZrO}_3\text{I}$. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 02Jul63

ENCL: 00

SUB CODE: GC

NO REF SOV: 003

OTHER: 006

Cord2/2

L 23485-65 EWT(m)/EWP(t)/EWP(b) LJP(c) JD/JG
ACCESSION NR: AP5002192 S/0080/84/037/012/2748/2748

AUTHOR: Kutolin, S. A.; Vulikh, A. I.

TITLE: Synthesis of alkali metal metatitanates under vacuum

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 12, 1984, 2748

TOPIC TAGS: alkali metal metatitanate, synthesis, lithium metatitanate, potassium metatitanate

ABSTRACT: A method was worked out for the synthesis of alkali metal titanates by sintering their hydroxides with TiO_2 under vacuum. TiO_2 , "special grade", was well mixed with a stoichiometric amount ($\text{Me}_2\text{O}:\text{TiO}_2 = 1$) of LiOH or KOH and placed in a vacuum furnace with a horizontal retort. The temperature was brought to 650 or 800C for the Li or K, respectively, and held for 1 hour at atmospheric pressure. The pressure was then reduced to 0.5-1 mm Hg and the temperatures were maintained for 2 more hours. The fusion temperature of the product Li_2TiO_3 was $1325 \pm 50\text{C}$ and of K_2TiO_3 , $820 \pm 10\text{C}$. Orig. art. has: no

Card 1/2

L 23485-65

ACCESSION NR: AP5002192

graphics

ASSOCIATION: None

SUBMITTED: 26Apr63

NR REF SOV: 003

ENCL: 00

SUB CODE: GC

OTHER: 006

Cord2/2

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927920005-7

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927920005-7"

L 53696-65 EAT(m)/EPF(m)-2/T/EWP(t)/EWP(b)/EWA(c) Pu-4 IJP(c) JD/WW/30
 ACCESSION NR: AP5011936 UR/0363/65/001/003/0388/0391
 666.3:542.9

AUTHOR: Kutolin, S. A.; Vulikh, A. I.; Sergeyeva, A. Ye.

TITLE: Effect of atmospheres of various gases on the thermal synthesis and the properties of $\text{Me}_2\text{Me}^{\text{IV}}\text{O}_3$ and $\text{Me}^{\text{I}}\text{Me}^{\text{V}}\text{O}_3$ type compounds

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 3, 1965, 388-391

TOPIC TAGS: thermal synthesis, mixed oxide, alkali metal, titanium, zirconium, hafnium, niobium, tantalum

ABSTRACT: Thermal synthesis of anhydrous compounds $\text{Me}_2\text{Me}^{\text{IV}}\text{O}_3$ and $\text{Me}^{\text{I}}\text{Me}^{\text{V}}\text{O}_3$ (where Me^{I} is an alkali metal; Me^{IV} is Ti^{4+} , Zr^{4+} , Hf^{4+} , and Me^{V} is Nb^{5+} , Ta^{5+}) was studied in air and nitrogen atmospheres and in a vacuum. Preparation of these types of compounds is of interest to the nuclear power and electrical ceramic industries. The title compounds were prepared by fusing mixtures of alkali metal carbonates with oxides of the transition elements in the temperature range from 500°C to 900°C. Fusing duration varied from 1 to 8 hours. Quantitative formations of $\text{Me}^{\text{I}}\text{Me}^{\text{IV}}\text{O}_3$ and

Card 1/2

L 53694-65

ACCESSION NR: AP5011936

$\text{Me}^{\text{I}}\text{Me}^{\text{V}}\text{O}_3$ were achieved by fusing carbonates of Li, K, and Cs with TiO_2 , ZrO_2 , HfO_2 , Nb_2O_5 , and Ta_2O_5 in the stream of nitrogen and in a vacuum at 700° to 800°C and in the absence of mineralizers. Presence of air atmosphere has a deleterious effect on rate of formation of $\text{Me}^{\text{I}}\text{Me}^{\text{IV}}\text{O}_3$ and $\text{Me}^{\text{I}}\text{Me}^{\text{V}}\text{O}_3$ due to chemisorption of O_2 , H_2O , and CO_2 by the solid reaction products. The optimum fusing duration is from 2 to 4 hours and the optimum reaction temperature is from 700° to 800°C in both nitrogen atmosphere and in a vacuum (1 mm Hg). Densities, melting points, and crystallographic structures of several title compounds were determined. Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: none

SUBMITTED: 04Jan65

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 009

OTHER: 004

Card 2/2

L 60929-65

ACCESSION NR: AP5018927

UR/0363/65/001/006/0928/0930
543.422.4

AUTHOR: Kutolin, S. A.

TITLE: Infrared absorption spectra of the compounds Li_2TiO_3 , Li_2ZrO_3 , and Li_2HfO_3

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 6, 1965, 928-930

TOPIC TAGS: lithium titanate, lithium zirconate, lithium hafnate, infrared absorption spectrum, ferroelectric material

ABSTRACT: The infrared spectra were obtained with a UR-10 double-beam spectrometer. A comparison of the spectra of Li_2MO_3 (where $\text{M} = \text{Ti}$, Zr , and Hf) with those of compounds of the type $\text{Ba}(\text{Pb})\text{MO}_3$, which are ferroelectric materials, suggests that Li_2MO_3 may also have ferroelectric properties. As in compounds of the type $\text{Ba}(\text{Pb})\text{MO}_3$, in Li_2MO_3 two optical frequencies are observed which are related to the stretching and bending vibrations of the $\text{M}(\text{O}_2)_6$ octahedron. As in the case of ferroelectric materials, the valence band of Li_2MO_3 is considerably broadened and has a fine structure. A comparison with the evidence already

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L 60929-65

ACCESSION NR: AP5018927

reported in the literature is made. "The author is grateful to S. S. Batsanov,
A. I. Vulikh, and Ya. D. Ruchkin for interest shown in this work."

ASSOCIATION: none

SUBMITTED: 25Feb65

ENCL: 00

SUB CODE: IC, OP

NO REF SOV: 008

OTHER: 006

Card 2/2

L 13102-66

ACC NR: AP5025798

EWT(m)/EPF(n)-2/EMP(t)/EMP(b)

LJP(c) JD/WW/JQ

SOURCE CODE: UR/0363/65/001/009/1590/1592

AUTHOR: Kutolin, S. A.; Druz', K. A.

ORG: none

TITLE: Relationship between the structure and properties of lithium metazirconate and the conditions of its synthesis

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 9, 1965, 1590-1592

TOPIC TAGS: lithium compound, zirconate, IR spectroscopy

ABSTRACT: The two stable modifications of lithium metazirconate, $\text{Li}_2\text{ZrO}_3\text{I}$ and $\text{Li}_2\text{ZrO}_3\text{II}$, are compared. The x ray pattern of Li_2ZrO_3 was indexed in the parameters $a = 5.39 \text{ kX}$, $c = 29.85 \text{ kX}$; it is shown that some of the lines are not indexed in this lattice, and hence that the lattice of $\text{Li}_2\text{ZrO}_3\text{I}$ is pseudotetragonal. $\text{Li}_2\text{ZrO}_3\text{II}$ was indexed in the tetragonal system with lattice parameters $a = 8.98 \text{ kX}$ and $c = 3.42 \text{ kX}$. Analysis of the x ray data for both modifications leads to the conclusion that $\text{Li}_2\text{ZrO}_3\text{II}$ is indeed a new modification of Li_2ZrO_3 . An IR spectroscopic study of Li_2ZrO_3 in the $400\text{-}5000 \text{ cm}^{-1}$ range revealed a broad band around 1000 cm^{-1} having a fine structure, and an absorption

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UDC: 546.34'831.4

L 13102-66

ACC NR: AP5025798

band around 450 cm^{-1} . By analogy with IR spectra of metatitanates and metazirconates, the broad band is attributed to the stretching vibration of $\text{Zr}(\text{O}/2)_6$, and the second band to bending vibrations of the octahedron. The fine structure may be related to the ferroelectric properties of Li_2ZrO_3 . The refraction of the latter, calculated from data on the refraction of the ions, is close to that obtained from the Lorenz-Lorentz formula, indicating a considerable ionic bond character in this compound. The authors thank Ye. D. Ruchkin and Ye. V. Dulepov of the Institute of Thermal Physics, SO AN SSSR for attention to this work and for their assistance. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 03Jun65/ ORIG REF: 007/ OTH REF: 007

20/

Card 2/2

L 34503-65 EWT(m)/EMP(t)/EMP(b) IJP(c) JD/JG
ACCESSION NR: AP5002802 S/0078/65/010/001/0140/0144

AUTHOR: Kutolin, S. A.; Vulikh, A. I.

TITLE: Synthesis of alkali metal metatitanates in vacuum

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 1, 1965, 140-144

TOPIC TAGS: alkali metal metatitanate, synthesis, structure, density, fusion temperature, hydrolysis

ABSTRACT: The reaction of LiOH, KOH and Li_2CO_3 with TiO_2 at atmospheric pressure and under 1 mm Hg vacuum at 650-950 C for 2-4 hours to synthesize the alkali metal metatitanates was investigated. Li_2TiO_3 and K_2TiO_3 were produced quantitatively by low temperature (650 and 800C, respectively) reaction under vacuum. Higher temperatures resulted in colored products and corrosion of the corundum and porcelain crucibles. There was no reaction between the carbonate and TiO_2 in air; under vacuum the reaction was essentially the same as with the hydroxide. X-rays showed the structure of the Li_2TiO_3 was ordered. The densi-

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L 34503-65

ACCESSION NR: AP5002802

ty and the fusion temperatures of Li_2TiO_3 and K_2TiO_3 were determined. Both compounds were stable to 800C. Both hydrolyzed in water, the K_2TiO_3 decomposing somewhat more readily than Li_2TiO_3 . Orig. art. has: 2 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: 24Jul63

ENCL: 00

SUB CODE: GC, IC

NR REF SOV: 005

OTHER: 016

Card 2/2

KUTOLIN, S.A.

Additive chart for the calculation of the standard heats of formation of the silicate class minerals. Izv. SO AN SSSR no.7 Ser. khim. nauk no.2:1/1-1/3 '65.

(XERA 18:12)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk. Submitted May 26, 1964.

L 13030-66 EWT(m)/EPF(n)-2/ENP(t)/ENP(b) IJP(c) JD/WN/JN/JG
ACC NR: AP5028584 SOURCE CODE: UR/0076/65/039/011/2763/2765

AUTHOR: Kutolin, S. A.; Sergeyeva, A. Ye.

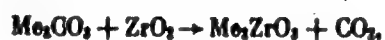
ORG: none

TITLE: Thermodynamic study of synthesis of Me_2TiO_3 and Me_2ZrO_3 type compounds

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 11, 1965, 2763-2765

TOPIC TAGS: titanate, zirconate, thermodynamic analysis, *alkali metal, carbonate, inorganic synthesis*

ABSTRACT: Thermodynamic analyses were conducted for the reactions of alkali metal carbonates with TiO_2 and ZrO_2 for the production of Me_2TiO_3 and Me_2ZrO_3 type compounds



UDC: 541.11

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L 13030-66

ACC NR: AP5028584

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The data show that synthesis of alkali metal metatitanates and metazirconates is possible above 1000°K with the exception of cesium metatitanate. The analysis show that in the K_2O-ZrO_2 system it is thermodynamically possible to have K_2ZrO_3 , but the latter compound decomposes into respective oxides at ~1400°K. Orig. art. has: 1 table.

SUB CODE: 0720,11/ SUBM DATE: 14Oct64/ ORIG REF: 000/ OTH REF: 000

SP
Card 2/2

ACC NR: AP6020557

SOURCE CODE: UR/0414/GG/000/001/0100/0104

AUTHOR: Batsanov, S. S. (Novosibirsk); Deribas, A. A. (Novosibirsk); Kutolin, S. A. (Novosibirsk); Kostyreva, I. V. (Novosibirsk)

ORG: none

TITLE: Effect of an explosion on a substance. Dynamic compression of sodium nitrate

SOURCE: Fizika gorenlya i vzryva, no. 1, 1966, 100-104

TOPIC TAGS: sodium nitrate, compression shock wave, compressive stress, spectrophotometric analysis

ABSTRACT: The properties of polycrystalline sodium nitrate subjected to dynamic compression were investigated. Dynamic compression of NaNO_3 was accomplished by exploding 70-150 g of trimethylene trinitramine in the presence of 1.40 g of the investigated substance in a standard ampule, 5 mm in diameter and 40 mm long. After detonation and opening of the ampules the appearance of a red-brown color along the axis of the ampules was noted in all cases. A special analysis of this portion of the specimen showed the presence of up to 1% iron, consequently the red color of the crystals can be due to admixtures of iron compounds. The optical density of the specimens of sodium nitrate subjected to dynamic compression was mea-

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5 HU55-66

ACC NR: APC920557

ured on a spectrophotometer. The specimens were pressed into tablets (4 mg of the investigated substance per 200 mg of KBr). The red-brown color of the substance from the bottom and middle of the ampules corresponded to the gentle slope of the optical density curve in the 400-600 mμ region. No peaks characteristic for iron oxide were noted on the curve. For compressed sodium nitrate from any part of the ampule, a fine structure of the optical density spectrum in the 320-400 mμ region in the form of more than 20 peaks was characteristic. The presence of the fine structure can be explained by the development of defects in the sodium nitrate after dynamic compression. Heating of the compressed sodium nitrate at 225C for 2 hr did not change the optical density spectrum. A chemical analysis of the red-brown phase for the content of sodium and nitrogen revealed a satisfactory agreement between determinations. Sodium was determined by the flame photometry method and nitrogen by Reich's and Kjeldahl's methods with preliminary reduction of the nitrate to ammonia. The deviation of the results of the analysis from stoichiometry were within 1-2%, i.e., at the level of defects. A physical examination of the nature of the defects was not carried out, but it was assumed that the defects in the compressed sodium nitrate were formed as a result of the transfer of a charge from the nitrate ion to the sodium ion. It is concluded that as a result of the dynamic compression of NaNO₃ defects, electroneutral atoms, or groups of atoms of sodium occur. The hypothesis of the transport of a charge to the sodium ion is attested to by the increase of the dielectric constant: in a specimen with a density of 2.05 the dielectric constant is 8.1 as opposed to 7.1 for the original NaNO₃. The investigation of defects in NaNO₃ subject to compression will be continued. Orig. art. has: 3 tables and 3 figures.

Card 2/2³SUB CODE: 19,20/ SUBM DATE: 28Sep65/ ORIG REF: 005/ OTH REF: 001

ACC NR: AP6032947

SOURCE CODE: UR/0363/66/002/010/1803/1810

AUTHOR: Kutolin, S. A.; Vulikh, A. I.; Druz', N. A.; Shammisova, A. Ye.

ORG: none

TITLE: Dependence of the structure and properties of the A_2BO_3 and ABO_3 compounds on the composition of the gaseous atmosphere in thermal synthesis

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 10, 1966, 1803-1810

TOPIC TAGS: ferroelectric material, antiferroelectric material, dielectric constant, physical chemistry property, refractive index

ABSTRACT:

In a recently published article, the authors [association unknown] analyzed the data from Western and Soviet literature, including their own experimental data which were published in 1964-66, on the thermal synthesis, structure, and properties of A_2BO_3 and ABO_3 compounds, where A is an alkali metal and B is Ti, Zr, Mn, Nb, or Ta.

In previous publications, the authors established the effect of the gaseous medium in which the compounds were synthesized on their structure and particle size. Now, they have made a detailed analysis of the earlier data to correlate the conditions of synthesis,

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UDC: 666.3:541.6

ACC NR: AP6032947

primarily the gaseous medium, with the physicochemical properties of the compounds. In the authors' opinion, this analysis is of practical importance for the synthesis and application of these compounds. The properties studied were: density, index of refraction, dielectric constant, intensity of IR absorption bands, and catalytic activity. The experimental data were obtained with samples sintered at a relatively low temperature from a solid mixture of an alkali carbonate and an acidic oxide, in vacuum or in a nitrogen stream.

The nature of the gaseous medium was shown to affect only the structure of alkali metatitanates and manganites (A_2BO_3), and not their physicochemical properties, such as density, index of refraction, or dielectric constant. Density was the only property of the manganites which was actually measured; the index of refraction and dielectric constant of the manganites exceeded the measurable values. An exception was the crystal symmetry of K_2TiO_3 and $RbTiO_3$ which apparently remained unaffected by the gaseous medium in which their synthesis was accomplished. However, the existence in these two compounds of second order phase transitions, undetected by x-rays, may not be excluded. In all alkali metatitanates the intensity of the IR absorption bands due to deformation vibrations of

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ACC NR: AP0032947

the $[\text{TiO}_6]$ octahedra was found to be independent of the method of synthesis. Their catalytic activity was affected by the gaseous medium, as shown, for example, by the comparative data on specific surface, preexponential factor, and activation energy for a maximum decomposition of hydrogen peroxide on a Li_2TiO_3 catalyst prepared in the air or in vacuum.

In the group of A_2BO_3 and ABO_3 compounds, where B is Zr, Nb, or Ta, i.e., alkali metazirconates, metaniobates, and metatantalates, only NaTaO_3 behaved like the alkali metatitanates and manganites versus the gaseous atmosphere in the synthesis. The gaseous atmosphere changes the crystal structure, i.e., symmetry type and lattice constants of NaTaO_3 , but does not affect its picnometric density or intensity of deformation vibrational bands in their IR transmission spectra. Other compounds of this group -- Li_2ZrO_3 , NaNbO_3 , KNbO_3 , CsNbO_3 , and CsTaO_3 -- change their crystal structure, i.e., symmetry type and/or lattice constant, in different gaseous media simultaneously with certain physicochemical properties, e.g., picnometric density, dielectric constant, intensity of deformation vibrational bands in the IR absorption spectra, and catalytic activity versus H_2O_2 decomposition.

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The crystal structure of LiNbO_3 , LiTaO_3 , and KTaO_3 , was not affected by the difference in gaseous atmosphere in the synthesis, but piezometric density, index of refraction, and intensity of deformation vibrational bands of the IR spectra were substantially changed.

These diverse and strong effects of the gaseous medium on the structure and properties of A_2BO_3 and ABO_3 compounds were explained as the result of deformability of their structure, specifically of the tendency toward distortion of the $[\text{TiO}_6]$, $[\text{NbO}_6]$, and $[\text{TaO}_6]$ octahedra. This deformability was correlated with a significant ionic polarizability of the alkali metatitanates, metaniobates, and metatantalates. This correlation which was experimentally established for the above-indicated compounds (presumably) may be extended to other compounds with significant ionic polarizability and may form the base for predicting the possibility of a beneficial effect of a given gaseous medium on the completeness of synthesis of a given compound. In addition, a significant ionic polarizability of a given compound may be an indication of a potential ferroelectric or antiferroelectric property.

An additional indication of the possible ferroelectric or antiferroelectric property of alkali metatitanates was seen in the ob-

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ACC NR: A16032947

served analogy in the structure of their IR absorption bands which are linked to the stretching vibrations of the $[\text{TiO}_6]$ octahedra and in the structure of the corresponding bands of the $[\text{NbO}_6]$ and $[\text{TaO}_6]$ octahedra in the IR absorption spectra of the alkali metaniobates and metatantalates. The observed spectral structure is characteristic of ferroelectric materials. The authors concluded that confirmation of the effect of a gaseous medium on solid-phase synthesis of a given compound is a prerequisite for studying the ferroelectric property in this compound. Orig. art. has: 1 figure and 8 tables.

[FSB: v. 3, no. 2]

SUB CODE: 11,07;20 / SUBM DATE: 14Jul65 / ORIG REF: 022 / OTH REF: 016

Card 5/5

ACC NR: AP7004724 (A) SOURCE CODE: UR/0413/67/000/001/0012/0012

INVENTOR: Kutolin, S. A.; Bulikh, A. I.; Sereyeva, A. Ye.

ORG: None

TITLE: A method for producing gallium nitride. Class 12, No. 189811

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 12

TOPIC TAGS: gallium compound, nitride, chloride, silver chloride

ABSTRACT: This Author's Certificate introduces a method for producing gallium nitride by interacting metallic gallium with ammonia in the presence of heat. The yield of the product is increased and its quality is improved by mixing the initial gallium with ammonium chloride and carrying out the process in the presence of a metal chloride which is capable of reduction by hydrogen under the conditions of synthesis, e. g. copper or silver chloride, preferably with the ammonia under a pressure of 6 atm at a temperature of 700°C.

SUB CODE: 11, 07/ SUBM DATE: 02Mar64

Card 1/1

UDC: 546.681'171.1.07

L 4542-66 ENT(1)/EMP(e)/EMP(m)/FET(e) LAL(w)/ETC/ENG(m)/ENA(d)/T/EMP(t)/EMP(k)/EMP(z)/

ACC NR: AP5026066 FCS(k)/EMP(b)/ENA(c)/ETC(m) LIP(o) JD/TW/JW/JQ
NOTICE CONC: UB/0405/65/000/002/0052/0061

AUTHOR: Batsanov, S. S. (Novosibirsk); Deribas, A. A. (Novosibirsk); Kutolin, S. A. (Novosibirsk)

ORG: none

TITLE: The action of explosion on matter. Thermodynamics of shock compression of powders

SOURCE: Nauchno-tekhicheskiye problemy gorenija i vzryva, no. 2, 1965, 52-61

TOPIC TAGS: shock wave, crystallization, carbonate, shock compression, solid state physics

ABSTRACT: In previous studies, the author pointed to the possibility that superhigh pressures generated by shock waves can be used to crystallize amorphous substances or to change the atomic or electron structure of matter. In the present study, the thermodynamic parameters in the shock compression of a steel cylinder affected by the detonation of a hexogen charge were calculated and a relationship relating the kinetic energy of a steel cylinder with the size of the charge was solved by electronic computation. The results showed that for a given case the kinetic energy of the cylinder does not increase further when weight of the charge exceeds 170 g. This finding is in agreement with previous experiments which indicated that the crystallinity of neodymium oxide did not increase further when the weight of the charge was increased

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UDC: 532.593

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L 4542-66

ACC NR: AP5026066

above 100 g. The change in the shape of the cylinder during shock compression was determined by means of x-ray pulses. To study the behavior of carbonates under shock compression, experiments were made with CaCO_3 , SrCO_3 , BaCO_3 , CuCO_3 , and others. It was found that the carbonates dissociate into a metal oxide and carbon dioxide. From the temperature and the degree of dissociation it was calculated that the pressure in the adiabatic compression wave amounts to $(1.63-1.66) \cdot 10^5$ atm. Orig. art. has: 32 formulas and 1 figure. [PV]

SUB CODE: WA, ME/ SUBM DATE: 19Jan65/ ORIG REF: 007/ OTH REF: 001/ ATD PRESS:

4135

Card 2/2

KUTOLIN, V.A.

Intrusion of dolerites in the Novosibirsk region. Geol.1
geofiz. 4:76-81 '62. (MIRA 15:8)

1. Novosibirskaya geologopolskovaya ekspeditsiya.
(Novosibirsk region—Dolerites)

KUTOLIN, V.A.

Petrochemical study of the process of differentiation of
basaltic magma in bedded bodies. Geol. i geofiz. no.6:39-51
'62. (MIRA 15:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN
SSSR, Novosibirsk.
(Basalt) (Dolerites)

KUTOLIN, V A.; KUZNETSOV, Yu.A.; otv. red ; KOROLEVSKAYA, B.N.,
red.; CVCHINNIKOVA, T.K., tekhn red.

[Trap rock formation in the Kuznetsk Basin] Trappovaya
formatsiya Kuzbassa. Otv. red. Yu.A.Kuznetsov. Novosibirsk,
Izd-vo Sibirskogo otd-niya AN SSSR, 1963. 116 p.
(MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Kuznetsk Basin--Rocks, Igneous)

KUTOLIN, V.A.

Differentiation in the sills of the southeastern part of the Kuznetsk
Basin. Geol. i geofiz. no. 1:98-110 '63. (MIRA 16:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

(Kuznetsk Basin--Sills (Geology))

KUTOLIN, V.A.

Petrochemical characteristics of the acid derivatives of basalt
magma in platform areas. Geol. i geofiz. no.2:74-81 '64.
(MIRA 18:1)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

GOL'DIN, S.V.; KUTOLIN, V.A.

Petrochemistry of the traps of Katanga and Kuz'movka complexes in
the western margin of the Siberian Platform. Sov. geol. 7 no.12:
133-139 D '64. (MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.

KUDLIN, V. A.

Composition of the upper mantle from the volcanic
petrochemistry. Dokl. AN SSSR 1974, No. 24, 141-144. (MIRA 1974)

1. Institut geologii i geofiziki, ul. Starobulavaya 38
63001, Irkutskaya Oblast', Irkutsk.

BELOUSOV, A.F.; DOBKETSOV, N.A.; KOCHKIN, Yu.N.; KRIVENKO, A.I.; KUTOLIN,
V.A.; TELESHEV, A.Ye.; KHLESTOV, V.V.

Experience in the utilization of calculations on electronic
computers for the solution of petrochemical and mineralogical
problems. Geol. i geofiz. no.6:163-164 '64. (MIRA 18:11)

1. Institut geologii i geofiziki Sibirskogo otdeleniya
AN SSSR, Novosibirsk.

MOISEYENKO, U.I.; SOLOV'YEVA, Z.A.; KUTOLIN, V.A.

Heat conductivity of granite in the case of high temperature.
Dokl. AN SSSR 165 no.3:670-671 N '65. (MIRA 18:11)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
Submitted May 29, 1965.

VORONOVA, A.M.; KUTOLINA, N.I.

Treatment with olitorizide of cardiac insufficiency. Sov.med.
no.3:136-140 '62. (MIRA 15:5)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. kafedroy -
chlen-korrespondent AMN SSSR prof. D.D. Yablokov) Tomskogo
meditsinskogo instituta (dir. - prof. I.V. Toroptsev).
(CARDIAC GLYCOSIDES) (BLOOD—CIRCULATION, DISORDERS OF)

ZATULOVSKIY, B.G., starshiy nauchnyy sotrudnik; BONDARENKO, V.I., mladshiy
nauchnyy sotrudnik; KUTOMANOVA, H.P.

Q fever in some regions of the Ukrainian S.S.R.; clinical and
laboratory data. Vrach. delo no.1:126-130 Ja '62. (MIRA 15:2)

1. Kiyevskiy institut epidemiologii i mikrobiologii (nauchnyy
rukovoditel' - deystvitel'nyy chlen AMN SSSR, prof. L.V.Gromeshevskiy)
i Chernigovskaya gorodskaya bol'nitsa.
(UKRAINE—Q FEVER)

MUKHOPAD, V.A.; KUTOMANOVA, N.P.; POZDNYAK, A.T.

Serological and epidemiological data on the detection of patients with Q fever in Khmel'nitskiy, Chernigov and Kiev Provinces of the Ukrainian S.S.R. Zhur. mikrobiol., epid. i immun. 41 no.3:140 Mr '64.

(MIRA 17:11)

1. Kiyevskiy institut epidemiologii i mikrobiologii Chernigovskoy gorodskoy infektsionnoy bol'nitsy i Chernigovskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya.

KUTOMOVA, Ye. H. (Moscow)

"Vergleichende Untersuchungen einiger Salbengrundlagen", Die Pharmazie, 7, Sep 1957.

Presented at a meeting on pharmaceutical technology, Pharmaceutical Inst., Humboldt University, Berlin, 16-19 May 1957

STETSIUK, A.M., KOROLEVA, M.G., KUTOMOVA, YE, N., SENOV, P.L.

First National Pharmaceutical Conference in the Rumanian Peoples
Republic. Ant.delo 7 no.6:71-76 N-D '58 (MIRA 11:12)
(RUMANIA—PHARMACY)

KUTOR, Jeno

Prevention of kernicterus in premature infants by periston. *Gyermekgyógyászat* 9 no.1-3:41-46 Jan-Mar 58.

1. Veszprem megyei Tanács Heim Pál Gyermekkorhazának (Igazgató főorvos: dr. Gaál István* közleménye.

(JAUNDICE, in inf. & child

kernicterus, not associated with fetal erythroblastosis,
prev. in premature inf. by polyvinylpyrrolidone (Hun))

(INFANT, PREMATURE, dis.

kernicterus, not associated with fetal erythroblastosis,
prev. by polyvinylpyrrolidone (Hun))

(POLYVINYLPIRROLIDONE, ther. use

prev. of kernicterus not associated with fetal erythroblastosis
in premature inf. (Hun))

KUTORGA, V., med. m. kand.

Neoplastic diseases in Lithuanian popular medicine. Sveik.
apsaug. 8 no.11:44-50 '63.

1. Lietuvos TSR Onkologijos mokslinio tyrimo institutas.
(NEOPLASMS) (MEDICINE, PRIMITIVE)

KUTORGA, V., med. m. kand.

Effect of some halogen alkylamine preparations on the growth of experimental tumors. Sveik. apsaug. 8 no.10:54-55 0'63.

1. Lietuvos TSR Onkologij s m. t. institutas, Vilnius.

*

KUTORGA, V., med.mokand.

The origin of some terms used in oncology and fetishism.
Sveik. apsaug. 8 no.9:32-36 S'63.

1. Lietuvos TSR Onkologijos mokslinio tyrimo institutas.

*

BARCH, I.Z., inzh.; KUTOV, E.N., inzh. Prinimali uchastiye: KALOCHNIKOVA, G.N., mladshiy nauchnyy sotr.; SAPOZHENIKOVA, G.F., starshiy laborant; BLOKHA, L.A., starshiy laborant; KONYUSHEVSKIY, Ye.I., red.; DONSKOY, Ya.Ye., red.; SHEVCHENKO, M.G., tekhn. red.

[Construction cranes] Stroitel'nye krany; spravochnoe posobie. Pod red. E.I. Konyushevskogo. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1961. 409 p. (MIRA 15:1)

1. Kharkov. Yuzhnyy nauchno-issledovatel'skiy institut promyshlennogo stroitel'stva. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury USSR (for Konyushevskiy). (Cranes, derricks, etc.)

KUTOV, P.

Problem of double tension (150-380/220 volts) in Sofia. p. 7.

Vol. 6, no. 11, Nov. 1955
ELEKTROENERGIJA
Sofiya, Bulgaria

So: Eastern European Accession Vol. 5 no. 1 April 1956

KUTOV, P.

New method for repairing the sleeve of connected cables. p.22
ELEKTROENERGIJA. (Ministerstvo na elektrifikatsiata i
Profsoiuz na elektroabotnitsite) Sofia. Vol. 7, No. 2,
February 1956

SOURCE: East European Accessions List, (EEAL) Library of
Congress, Vol. 5, No. 11, November 1956

KUTOV, P.

Training of the operating personnel in the electric-power plants and systems.

p. 23 (ELEKTROENERGIJA) Vol. 8, no. 9. Sept. 1957,
Sofia, Bulgaria

SO: Monthly Index of East European Accessions EFAI) LC, Vol. 7, No. 3,
March 1958

KUTOV, P., inzh.

A method of mounting the precast reinforced concrete bridges.
Stroitelstvo 10 no.1:5-8 Ja-F '63.

BULGARIA

KARABASHEFF, N., METEV, V., KUTOV, T., Department of Physics, Medical Institute, Sofia; Scientific Institute for Pedagogy, Sofia

"The Influence of Ultrasound Waves on the Germination of Maize"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 4, 1966, pp 305-308

Abstract: [German article] Since in the past the maize ultrasound germination studies yielded contradictory results, the authors carried out new such experiments in 1964 covering the period of germination up to the 11 th day of development. The frequency was 800 Kc with an approximately uniform optimum radiation intensity of 1.5 W/cm^2 . Results show that 1) optimally chosen radiation intensities hasten germination and the beginning stages of growth; 2) the same positive effect was observed with both the "VIR 42" and "Ohio C 92" hybrid species. The experiments are presently extended to the entire development state of the plant. There are 6 Soviet-block and 1 Western reference. (Manuscript received, 20 Dec 65.)

KUTOVA, A.A.

Obtaining silver from waste fixing solutions and solutions left
after primary washing of negatives. Vest. rent. 1 rad. 28 no.2:
58-59 Mr-Apr'63.

(SILVER)

(RADIOGRAPHY)

(MIRA 16:9)

KUTOVA, D.V.; BORTNITSKAYA, V.M. [Bortnyts'ka, V.M.]

All-Union seminar on laboratory investigation methods of the physico-mechanical properties of rocks for purposes of engineering geology.
Gool. zhur. 24 no.1:110-111 '64. (MIRA 18:7)

Kotova, M.

✓ Paper chromatography and polarography as a tool for the study of histidine metabolism in skin. Estimation of histidine and urocanic acid in human sweat. J. A. Král, M. Kotová, A. Ženíšek, E. Kojál, and I. Stolz (Charles Univ., Prague). *Biochim. et Biophys. Acta* 20, 567-8 (1950) (in English); cf. C.A. 48, 2556e. Methods are given for the direct, simultaneous estn. of histidine and urocanic acid (I) in sweat by paper chromatography and of I polarographically. Results obtained by the 2 methods were in agreement. *Yarrow Paper*

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M.K.

EXCERPTA MEDICA Sec.13 Vol.1/9 Cardiovascular Sept 57

2610. ADAM M., KUTOVÁ M., MALEČEK J. and TRUHLÁŘ P. Výzkumný Ústav Chorob Reumatických, Praha. Vliv kortisonu na hladinu glukoproteinu u reumatické horečky *The influence of cortisone on the level of glucoproteins in rheumatic fever* Fysiat. Vestn. (Praha) 1957, 35/1 (8—18) Graphs 10

In the treatment of rheumatic fever a study was made of the various manifestations of activity of the rheumatic process, apart from the usual criteria (ESR, clinical symptoms), also the level of serum glycoproteins or mucoproteins. Particular attention was paid to their behaviour in the course of treatment by cortisone. On the basis of their case material documented by graphs, the authors argue that variations in the level of serum glycoproteins excel by their sensitivity and reliability, the criteria hitherto employed for determining the activity of the rheumatic process.

(XVIII, 6, 7)

KÚTOVÁ, MARTA

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 mucoproteins in joint diseases. Milan Adam, JIH-
 Měleček, Marta Kútová, and Libuše Maršiková (Výzkumný
 ústav očních onemocnění, Prague). *Časopis lékařů*
českých 95, 42-60 (1957).—In all 15 patients with rheumatic
 fever (I) and 60 patients with rheumatoid arthritis (II) an
 increased serum level of mucoprotein tyrosine was observed.
 The mean value in the I group was 6.07 mg. %. In group
 II 4.65 ± 2.69 mg. %, the normal value being 1.97 ± 0.30
 mg. %. The serum level of nonglucosamine polysaccha-
 rides in group II was 225.1 ± 55.3 mg. %, the normal
 value being 126.8 ± 14.2 mg. %. 57 references. A. Z.